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(54) Title: HYDROGENATION CATALYST, PREPARATION THEREOF, AND METHOD FOR THE PREPARATION OF GAMMA-BUTYROLACTONE FROM MALEIC ANHYDRIDE USING THE CATALYST

(57) Abstract: The present invention relates to a hydrogenation catalyst represented by the following formula 1, a method for the preparation thereof, and a method for preparing gamma-butyrolactone using this catalyst. The method for preparing gamma-butyrolactone from maleic anhydride using the catalyst of the invention prepared by stabilizing the precursor particles of copper oxide, zinc oxide, and manganese oxide with a silica exhibits high selectivity, high yield, and high productivity under the operation conditions of a low molar ratio of hydrogen with regard to the reactants, and enables the preparation of gamma-butyrolactone from maleic anhydride with long-term stability without requiring frequent re-activation of the catalyst: Formula (I) CuO(a)ZnO(b)MnO₂(c)SiO₂(d) wherein a, b, c, and d are represented on the basis of weight, wherein a is 20 to 90, b is 0.01 to 10, c is 0.01 to 5, and d is 5 to 50.



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